

What are Optical Input Devices Where are they Used, and for What Purpose

Introduction to Optical Input Devices

Optical input devices insert data and information into computer systems using light beam technology. They are well known for more reliable and accurate inputs. Let us briefly understand what Optical input devices' use and Purpose are.

What are Optical Input Devices Where are they Used, and for What Purpose

The optical input devices convert or translate digital or analogue data into light signals that computer optical sensors can easily understand.

One of the most well-known optical input devices is a CD-ROM device that reads data and information from CDs and DVDs in digital format.

The optical input devices work with software that helps them function at their full potential.

Optical input devices are famous among gamers and business professionals. Keyboards and mouse are extensively used and utilized as input devices.

Optical input devices are a class of devices that use light to transfer data. This includes equipment like barcode scanners and the optical mouse.

Optical input devices can be connected to a computer system, laptop, desktop, or palmtop with the help of cables and USB.

Where are Optical Input Devices Used?

They are used when data and information are entered from outside the world into the computer system. The data is in the form of raw data translated and converted into machine readable form.

These data and information are passed on to the computer's central processing unit for further handling and processing. Later, this result is provided to output computer system devices in a human-readable form.

The output received can be in the form of HARDCOPY or SOFTCOPY.

The standard Optical Input Devices are

Keyboard and Mouse.

Purpose of Optical Input Devices

1. Insert the data inside the computer system.
2. Convert raw data into machine-readable form.
3. The data can be in the form of text, pictures and images.
4. The devices act as the intermediate between the user and the computer system.

Different Types of Optical Input Devices & Examples

1. Scanners
2. Webcam
3. Sound Cards
4. Barcode Readers
5. Endoscopes

6. Optical mice
7. Fibre Optic Network Cards
8. LIDAR

What are Scanner Input Devices in Computer

The Scanner is an input computer system device that is extensively used and utilized for transferring data and information from location A to location B.

The Scanner is one of the essential input devices of the computer. The scanners are efficient, reliable, inexpensive and versatile computer devices.

The scanners can create digital images of documents and store them in a computer hard disk drive.

They can read information from paper and translate it into human-readable form.

There are two types of scanners: flatbed scanners and sheet-fed scanners.

Optical Output Devices in Computer Systems

1. Monitors.
2. Projectors.
3. Webcam.
4. TVs.
5. HDMI
6. SDI
7. VGA

Pointing Devices of Computer System

1. Mouse
2. Keyboard
3. Touchpad
4. Joystick
5. Trackball
6. Light Pen
7. Optical Card Reader
8. Digitizing Tablet
9. Stylus

Different Types of Scanners [Use Image]

- Drum Scanner
- Handheld Scanner
- Flatbed Scanner
- Optical Character Recognition

- Magnetic Ink Character Recognition
- Image Scanner
- Light Pen
- Barcode Reader

Mechanical Input Devices

1. Keyboards
2. Mouse
3. Scanners
4. Digital Cameras
5. Joysticks.

Audio Input Devices

1. Microphones
2. MP3 players
3. Laptops
4. Tablets

Is a Scanner Input or Output Device of a Computer System

The Scanner is an input device of the computer.

9 Uses of Optical Input Devices

1. Optical Input devices enter data and information like images, text and documents into the computer system.
2. Optical input devices allow data to be stored permanently in a computer hard disk. The data, once stored, can be edited according to the user's requirements.
3. They are reliable, flexible and efficient devices for the computer.
4. They are compact.
5. They are Portable.
6. They are inexpensive compared to output devices of the computer system.
7. They can be easily connected to desktop computers, laptops, and mobile devices via USB, Wireless and Bluetooth.
8. Some optical input devices are also called "Pointing Devices".
9. The Scanner is the most crucial optical input device. That is used to store pictures, images and documents in the computer system.

Input Devices of Computer System

The computer is a well-known and essential device in the modern world. Purchasing and handling a computer system is no longer a luxury but a necessity.

Computer systems' fantastic features and characteristics made them famous in almost all household names.

Since they are designed and developed to perform tasks and operations given to them with incredible speed and accuracy, they are used and utilized in homes and offices.

The keyboard and mouse are the most essential and well-known input devices of computer systems.

The list of standard input devices is as follows.

1	Keyboard
2	Mouse
3	Scanner
4	Trackball
5	Joystick
6	Light Pen
7	Touch Screens
8	Optical Card Reader (OCR)
9	Magnetic Ink Character Recognition (MICR)
10	Optical Bar Code Reader (OBR)
11	Voice Recognition Devices
12	Optical Mark Reader (OMR)

Output Devices of Computer System

A computer system's output devices can provide output in the form of hard copy or soft copy.

An output device is a hardware device responsible for communications between the user and the device.

Examples of output devices of a computer system are as follows.

- Monitors

- Touch Screens
- LCD Monitors or LED Monitors
- Printers
- Speakers
- Headphones
- Sound Cards
- Plotters
- Projectors
- Optical Mark Reader.

Which Input Devices Use Optical Technology

1. Barcode Reader
2. Scanner
3. Light Pen

Frequently Asked Questions [FAQs] Optical Input Devices

An optical input device that interprets pencil marks on paper

OMR stands for Optical Mark Recognition.

Is OMR an input device?

Yes, OMR is an input device.

Is OCR an input device?

Yes, OCR is an input device.

What type of device is MICR?

MICR is an input device.

Is OCR an input device?

Yes, OCR is an input device.

What are the three types of the optical reader?

Optical Mark Reading (OMR), Optical Character Recognition (OCR), and Intelligent Character Recognition (ICR).

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<https://www.chtips.com/computer-fundamentals/what-are-optical-input-devices/>